Grade 4:

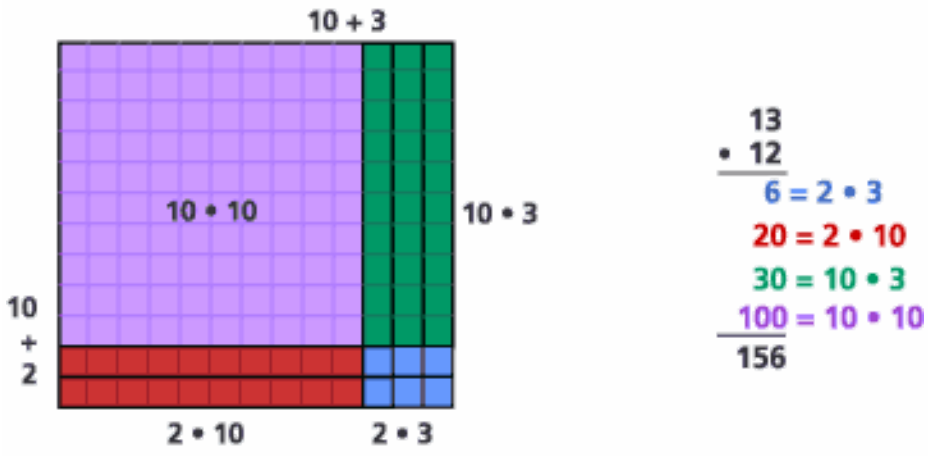
Math instruction in grade 4 focuses primarily on multiplying and dividing multi-digit numbers and extending the understanding of fractions. Students are expected to use models, place value and properties of operations to multiply and divide, as well as be able to estimate or perform mental calculations when appropriate. Students should be fluent with multiplication and division facts for numbers up to 12. Fourth graders extend their fraction knowledge to recognize and generate equivalent fractions and will add and subtract fractions with like denominators. They will also apply and extend their understandings of multiplication to multiply a fraction by a whole number using visual models and equations. Students will express a fraction with a denominator of 10 or 100 as a decimal and compare two decimals by reasoning about their size.

Fall:

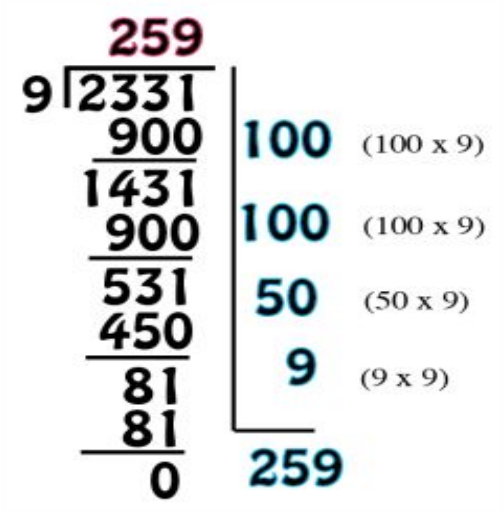
- Understand place value to one million and use it to represent numbers in expanded form:

  726,531 in expanded form is 700,000 + 20,000 + 6,000 + 500 + 30 + 1

- Fluently add and subtract multi-digit whole numbers
- Multiply a single-digit number by a multi-digit number using strategies that include equations, rectangular arrays, and area model
- Multiply a double-digit number by a double-digit number using strategies that include equations, rectangular arrays, and area model



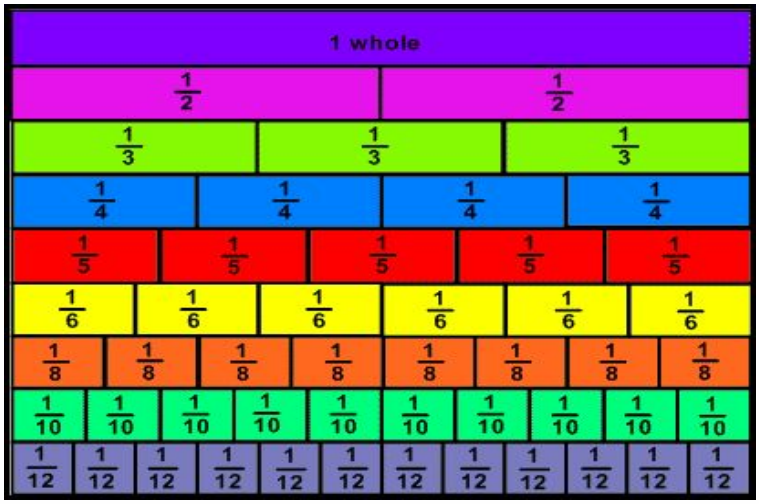
- divide multi-digit numbers (up to 4 digits) by a single-digit number using strategies that include equations, rectangular arrays, and area model



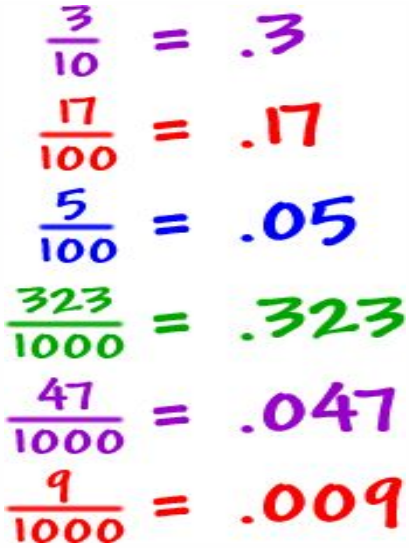
How-to videos:

Winter:

- Extend their understanding of fraction equivalence and ordering



- Compare two fractions by creating common denominators
- Add and subtract fractions and mixed numbers with like denominators
- Multiply a fraction by a whole number
- Solve word problems involving addition, subtraction, and multiplication of fractions
- Understand decimal notation for fractions (eg ½ = 0.5)

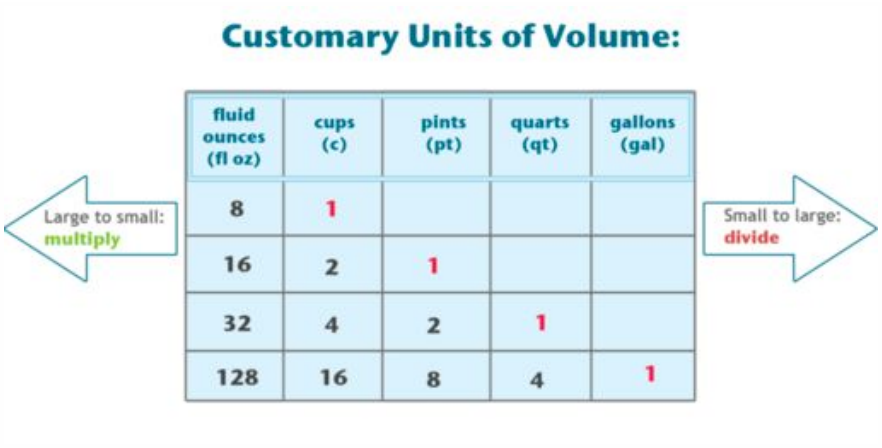


Key Vocabulary:

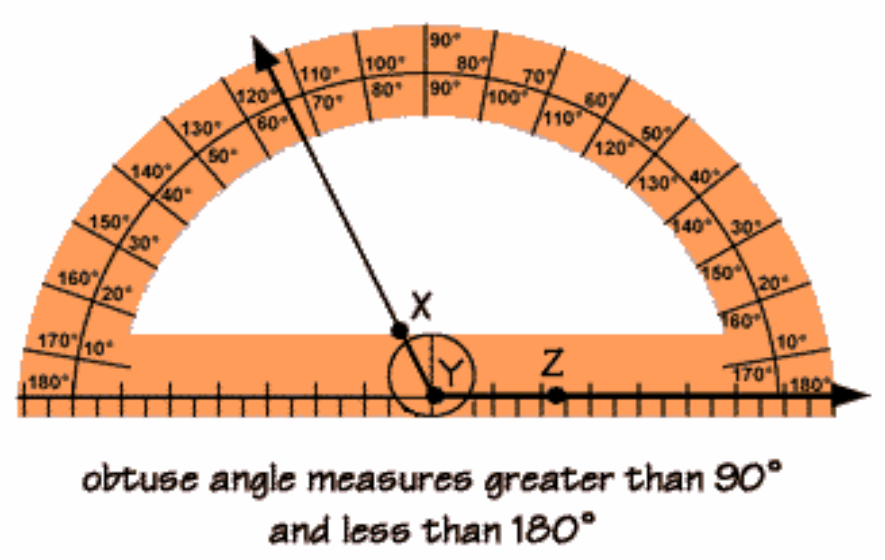
benchmark fraction

Spring:

- Solve problems involving measurement and conversion of measurements (eg, 1 foot = 12 inches, 1 kilogram = 1000 grams)



- Solve word problems involving distance, intervals of time, liquid volume, mass, and money
- Apply area and perimeter formulas for rectangles
- Understand the concepts of angle measurement



- draw points, perpendicular and parallel lines, line segments, rays, and angles (right, acute, and obtuse)
- classify 2-D shapes

How-to videos: